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# Living with Uncertainty in Times of Pandemic: The View of Working Students in Higher Education

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## Abstract

Today we live in times of real uncertainty. All of us, young, old, adults or children, experience new ways of facing daily challenges. The education and health sectors are naturally the most affected and deserve to be assessed for the impacts of this pandemic. This chapter aims to focus its analysis on a specific group of students in higher education: working students. In fact, this population group has a distinct profile from “regular” students in higher education. Typically, the student role is not the predominant one in their lives, competing with their roles as active workers and as heads of their families. Choosing a quantitative scientific methodology, about a hundred working student were the target of a survey exploring not only their greatest anxieties and fears, but also the ways they choose to deal with it, namely their exposure to media coverage of the COVID-19. It is expected that the results will contribute to a critical reflection on the challenges that this pandemic poses to us, identifying clues to better manage and overcome them.

**Keywords:** working students, coping styles, pandemic, fear, media exposure, covid-19

## 1. Introduction

We are living in an exceptionally challenging historical moment. We learned that no matter how much we control our lives, our environment and our relationships, everything can be transformed instantly, depending on the will of a virus that does not respect ages, nationalities, lineage, intelligence or skills. We learned that the unlimited power that science and technology had given us was just a huge illusion, owing to the absolute and overwhelming power of a nature that we had almost forgotten.

After all, the balance of forces we knew was inevitably stunned and the beliefs with which we built our lives were totally challenged by an unpredictable and constantly changing reality.

In fact, uncertainty is probably one of the biggest challenges we face today. Never, as much as today, the way we manage emotions can make a difference in our future, both personal and professional. Uncertainty about a potential future threat upsets our ability to avoid it or to mitigate its negative impact, and thus results in anxiety, fear and anguish. In fact, uncertainty weakens how efficiently

and effectively we can plan the future, and thus contributes to anxiety. Anxiety is related to anticipatory representations of possible, uncertain future events. On another hand, fear and anxiety can be distinguished according to how much certainty one has concerning the probability, timing, or nature of future threat. Moreover, environmental signs denoting the unambiguous presence of close threat increase the probability of a possible “fearful” defensive behaviors, more diffuse, distal, or unpredictable threat cues produce “anxious” risk assessment behavior that is likely to persist until such uncertainty is resolved.

More than a year has passed since SARS-CoV-2 began to spread around the world. If at first its presence did not cause severe apprehension, it soon turned into thoughtful worry, as more and more people were infected with COVID-19. Anxiety and fear have increase exponentially not only because of the newness of this virus and its consequences in the short, medium and long term, but basically because of its incredibly fast spread. The prevention measures that were briefly embraced around the world strongly conditioned everyone’s life; a phenomenon that had never been experienced during our lifetime. Restricted to our home, banned from traveling, forced to wear mask, obligated to strictly obey physical distancing protocols, everyone fought together to slow down the spread of COVID-19. On the other hand, the mass media did not only extensive, but also intense coverage, detailing every detail of a scenario, at the very least, scary and unpredictable.

Worldwide, there have been more than 150 million confirmed cases of COVID-19, and more than 3 million deaths ascribed to the illness. According to official predictions, throughout most of the world, the rate of new SARS-CoV-2 infections is gradually decreasing, because of herd immunity that has meaningly improved with vaccination efforts.

The preventive restrictions firstly fulfilled to block the spread of the virus are now starting to be smoothed over. However, the marks of the lockdown experiences remain and are mirrored in the way people deal with the newly re-acquired “freedoms”. Actually, the remaining fear and concern are certainly related to the fact that countries, such as Portugal, have lived periods of true hope followed by moments of extreme distress when faced with the exponential increase in infected people following a slight weakening of the preventive measures during the Christmas period. The population realized, often directly in themselves and in their closest ones, that the virus was not giving a break. And even when a “new normal” begins to be experienced, many fears and anxieties persist. For some, going back and socializing with other people is a source of fear and anxiety. Moreover, fear triggers safety behaviors (hand washing) that can mitigate certain contamination threats, but it tends paradoxically also to enhance fear [1–3].

In a survey of 44,000 participants conducted in Belgium in the beginning of April 2020, the number of people reporting an anxiety (20%) or a depressive disorder (16%) had increased substantially compared to a survey conducted in 2018 (i.e., 11% and 10% prevalence, respectively) [4]. However, it is important to note that anxiety, itself, is a regular emotion, experienced by people in their daily lives, and characterized by feelings of tension, worry, insecurity, usually accompanied by physical changes such as increased blood pressure and heart rate, sweating, dry mouth, tremors and dizziness. Despite this normative character, when anxiety persists in certain contexts, interferes negatively with the ability to perform daily activities and causes significant physical and/or emotional suffering, we are facing an anxious pathology. That is, under normal conditions, anxiety can be useful, as it helps to identify dangerous situations and allows for better preparation to face them. When well controlled, it acts primarily as a stimulant. In excess, it causes unnecessary suffering.

Despite vaccines and the decrease in the prevalence of the disease, some people experience what scientists already call the COVID-19 anxiety syndrome. Its

symptoms are close to those of other mental health conditions, including anxiety, post-traumatic stress disorder (PTSD) and obsessive–compulsive disorder (OCD), but its cause lies in the pandemic and related factors appear to be the cause.

## 2. COVID-19 anxiety syndrome

The strength and extent of this pandemic has put people on high alert, feeling fear and concern about the impact this virus could have. As scientific development allowed for a better understanding of the virus, as well as its forms of prevention and treatment, new routines began to be established to manage the relationship with this pandemic. As a worldwide phenomenon, there were many different reactions. Some people refused to change their behavior, while others strictly followed the rules to prevent the disease. However, on a larger scale, in one way or another, most people have experienced a unexpected disruption in their lives, what can be considered a disaster situation.

The International Federation of Red Cross and Red Crescent Societies classifies a disaster as “a serious problem occurring over a short or long period of time that causes widespread human, material, economic or environmental loss which exceeds the ability of the affected community or society to cope using its own resources.” A disaster can have comprehensive penalties for mental health, remarkably triggering post-traumatic stress disorder, anxiety and depression.

As a greater understanding of the pandemic-related mental health consequences evolved, an emerging group of anxiety-related symptoms and behaviors associated with the COVID-19 pandemic was identified. They classify this phenomenon as COVID-19 anxiety syndrome.

### 2.1 What is COVID-19 anxiety syndrome?

Nikčević and Spada [5] describe the characteristics of the COVID-19 anxiety syndrome, namely avoidance, compulsive symptom checking, worry and threat monitoring (combined). This syndrome is manifested by the impossibility of leaving the house for fear of COVID-19, frequent checking of symptoms despite not being in a high-risk scenario and avoiding social situations or people. People with this syndrome tend to have increased post-traumatic stress, general stress, anxiety, health anxiety, and suicidal ideation.

Stress can cause the following:

- Feelings of fear, anger, sadness, worry, numbness or frustration
- Changes in appetite, energy, desires and interests
- Difficulty concentrating and making decisions
- Difficulty sleeping or nightmares
- Physical reactions such as headaches, body aches, stomach problems and rashes
- Worsening of chronic health problems
- Worsening of mental health conditions
- Increased use of tobacco, alcohol and other substances

Since the pandemic is equated with its disaster situation, it is obviously natural to experience stress, anxiety, sadness and worry during the COVID-19 pandemic. The challenge lies in our ability to handle this. In fact, these could be central construct in explaining the negative individual and societal consequences of the coronavirus pandemic. Thus, it is vital to better understand what people are exactly afraid of and explore relevant predictors. A very particular public, and sometimes neglected by literature, are student workers and even more specifically, higher education student workers.

### **3. Working students in higher education**

Higher Education enrolments have continued on an upward climb for decades, as more people recognize the value of the higher education, mainly for the tangible value of the diploma in the marketplace. The diversity in higher education is an unquestionable trend, but with that diversity it is also seen deep changes in how students are funding their academic investments. Adult degree seekers, first-generation students and students from low-income backgrounds have become a mainstay in the growing mix in higher education today.

This new diversity challenges the image of the “traditional student”: direct-from-high school and financially supported by parents. Today’s higher education students face a complex set of dilemmas about whether to attend higher education, where to attend, how to pay, how much to work, how many jobs to take, how to manage family and children, and how to balance these competing priorities while in higher education. Thus, working students are those students who work outside the school and having a school responsibility too.

Different research studies have highlighted the negative consequences of working while studying, namely:

- the difficulties in meeting higher education requirements [6, 7],
- the absenteeism [8],
- the distress in the engagement process at higher education [9],
- the high risk of dropping out [10];
- the tiredness, the shortage of time and the few hours for recreation [11].

In fact, full time students experienced strong demands on their time management and could be at risk of overload [12]. Lowe & Gayle [12] conducted a study with working students and found that over half of the students achieved a good or manageable work/life/study balance, whilst some experienced stress caused by conflicting priorities.

The students’ success in balancing study with work and family life seems to be induced by their coping strategies and by the nature and quality of the support they get from families and employers. On another hand, Sanchez-Gelabert, Figueroa & Elias [13] advocate that regarding the impact of working while studying on academic performance, in general it seems that there is little disparity between the marks obtained when compared with full-time students. Even though this first professional socialization process has a negative impact on marks when the job is full-time, it actually has positive repercussions on future job quality. Thus, having a



related job seems to contribute most positively to the academic success. On another hand, better scores were obtained by those who had a related job while they studied for their degree. Obviously, these students developed and acquired specific skills and made contacts in the workplace which contributed to improving their labour market outcomes.

Mounsey et al. [14] conducted also a study which explored the differences between working and non-working students in terms of mental health, academic achievement, and perceptions about student employment. No significant difference in depression between working and non-working students were found; however, working students displayed more anxiety than non-working counterparts and reported more stress and fewer buffers. Unlike previous research, there was no difference in the grade point averages of working and non-working students, nor differences in perception of the problems and benefits of work.

In the pandemic context, according to the results of the survey conducted in Portugal, 90% of the respondents said that the lockdown caused by the covid-19 had a negative consequence on their mental health, namely in terms of demotivation, anxiety, 'stress' and sleep disturbances mentioned respectively by 85%, 72%, 63% and 56% of students. According to the same research study, many students still report feeling symptoms of depression, tiredness and fatigue, relating these symptoms to the increase in time spent in front of the computer. On the other hand, they also refer to the worsening of previously diagnosed psychiatric conditions, with most of them not having any follow-up on mental health issues.

As working students are a population that lives a set of tensions between their work, their academic studies and their family life, it is considered very important to explore not only their greatest anxieties and fears, but also the ways they choose to deal with it.

The main goal of our study was to assess working students' different fears and concerns regarding the coronavirus pandemic and the ways they choose to deal with it, namely their exposure to media coverage of the COVID-19.

## 4. Methods

### 4.1 Sample

The present study was developed in a higher education institution, whose programmes offer is exclusively in after-work hours. This institution offers bachelor's and master's degrees in the field of real estate management aimed at working students. It is a private institution that focused on teaching real estate management, being recognized in the specialized job market. Respondents for this study were recruited through online advertisements using a learning platform (Moodle) which is the same one they use daily to attend classes, which were taken place at a distance, during the lockdown period. All working students were identified and invited to participate.

In total, 155 respondents provided consent to participate. However, 54 respondents did not fill out properly or complete the survey. Hence, the final sample involved 101 respondents (completion rate: 65.16%). The majority of our sample consisted of men (67.33%) and a large majority of the respondents lives and/or works in the same district as the higher education institution operates (94.06%). Participation was on a voluntary basis (see **Table 1** for a detailed overview of the demographic data of our sample).

	N	%
<b>Age in years</b>		
18–30	14	13,86%
31–40	42	41,58%
41–50	28	27,72%
51–60	15	14,85%
More than 60	2	1,98%
<b>Gender</b>		
Male	68	67,33%
Female	32	31,68%
Prefer not to say	1	0,99%
<b>Region of residence</b>		
Sample District of HEI	95	94,06%
Another District	6	5,94%
<b>Work in healthcare</b>		
Yes	1	1%
No	99	98%
Unsure	1	1%
<b>Infected by the coronavirus?</b>		
Yes	1	1%
No	97	96%
Unsure	3	3%

**Table 1.**  
*Demographic information of the respondents (total N = 101).*

4.2 Materials and procedures

4.2.1 Measures

As in Mertens *et al* [15], fear of the coronavirus was measured using an 8-item questionnaire referred to as the Fear of the Coronavirus Questionnaire (FCQ). Respondents were asked to rate their level of agreement with each statement on a 5-point Likert scale (1 = “Strongly disagree”, 5 = “Strongly agree”). Examples of the items are: “I am very worried about the coronavirus”, “I am taking precautions to prevent infection (e.g., washing hands, avoiding contact with people, avoiding door handles)”, and “I take more precautions compared to most people to not become infected”. Each item corresponds to different fear factors, such as subjective experiences (worrying), attentional biases, and avoidance behaviors [16].

Intolerance of uncertainty (IU) was measured using the IUS-12 developed and validated by Carleton, Norton, and Asmundson [17], which assesses an individual’s propensity to find uncertain situations unpleasant. It consists of 12 statements scored on 5-point Likert scales (1 = “Not at all characteristic of me”, 5 = “Entirely characteristic of me”). Examples of the statements are: “Unforeseen events upset me greatly”, “It frustrates me not having all the information I need”, and “Uncertainty keeps me from living a full life”.

To measure voluntary exposure to news about the coronavirus, respondents were asked to answer the following question: “Have you looked up any extra

information regarding the coronavirus outbreak?”. Likewise, if they had looked up any information, they were asked to indicate what sources they accessed (options: “Regular newspapers/websites/TV news”, “Social media (Facebook, Twitter, Instagram, ...)”, “Professional websites (health institute, blogs posted by virologists/biologists, ...)”, “Friends/family/acquaintances”, “Online searches (e.g., through Google, Bing, Ecosia, etc.)”, “Other (please specify)”; multiple answers were possible). Finally, they were asked to rate the extent to which they paid attention to the source of the media outlet when looking up new information using 5-point Likert scales (1 = “Strongly agree”, 5 = “Strongly disagree”).

As demographic predictors, respondents were asked to indicate the gender they identify with the most (“male”, “female”, “prefer not to say”), their age (in decade categories), whether they work in healthcare (“yes”, “no”, “unsure (please clarify)”), whether they already got infected by the virus (“yes”, “no”, “unsure”), and their place of residence.

#### *4.2.2 Survey administration*

All questionnaires described above were delivered through an online survey using the Moodle platform. The online survey could be completed with the use of a personal computer/laptop, tablets, or smartphone. The complete survey took approximately 10 min to complete.

#### **4.3 Data analysis strategy**

As this is an highly exploratory study, descriptive statistical analyses were carried out, using the analysis of relative percentages. Analyses were conducted in IBM SPSS v26.

The demographic variables analyzed were the gender and the age. The remaining demographic data were not included in the analysis because the majority of the respondents do not work in healthcare (95.95%), had never been infected with the virus and mostly lived in the same place where the higher education institution operates.

### **5. Results**

Results point out to the large majority of the working students were very worried about the corona virus (91,8% agree or strongly agree) and are taking precautions to prevent infection namely, washing hands, avoiding contact with people, avoiding door handles (87,6% agree or strongly agree). Women tend to be more worried than men, however men seem to be taking more precautions to prevent infection. The oldest one tends to be more worried and to take more precautions to prevent infection.

It is also the older people who tend to constantly following all news updates regarding the virus and the same trend appear in women, albeit with less intensity. However, the vaster majority of the working students tend to constantly following all news updates regarding the virus (70.3% agree or strongly agree). A similar percentage is found among the same respondents when asked if they have stocked up on supplies to prepare for problems related to the coronavirus outbreak (68.32% agree or strongly agree). Nonetheless, are men and the oldest who assume to have stocked up on supplies.

The results show that working students found the virus much more dangerous than the seasonal flu (95.05% agree or strongly agree) and differences of opinion



between men and women are not noticed. However, the same does not happen when the analysis focuses on age, as older people, although most of them agree, 34% disagree or strongly disagree.

Almost all the working students (98%) agree or strongly agree with the idea of “I am worried that friends or family will be infected”. All the women agree or strongly agree, such as 94.3% of the respondents with 50 years old or more. The opposite trend is noticed on the answers related to this statement: “I feel that the health authorities are not doing enough to deal with the virus”. Only 31.68% of the working students consider that health authorities are not doing enough to deal with the virus. This percentage increases lightly in men and older people.

When asked to compare themselves with the rest of the population, working students consider that they take more precautions not to be infected (77.23%). Men and younger respondents tend to agree even more than the average of working student who are more cautious than the rest of the population.

When the intolerance of uncertainty was measured, which assesses an individual's propensity to find uncertain situations unpleasant, the results point to the idea that working students tend to be highly likely to consider situations of uncertainty as uncomfortable. In fact, the majority of the working students tend to agree or strongly agree with statements such as “Unforeseen events upset me greatly” (66.33%), “It frustrates me not having all the information I need” (76.24%), and “Uncertainty keeps me from living a full life” (56.44%).

To measure voluntary exposure to news about the coronavirus, the vast majority of the respondents (70.30%) seems to agree (binary answer: yes or no) to the question: “Have you looked up any extra information regarding the coronavirus outbreak? (not taking into account coincidentally seeing/reading about it in the news)”. Websites and TV news were the sources more mentioned by working students to looked up any information about corona virus. The oldest tend to give more importance to regular newspapers and the newest prefer social media, such as Facebook, Twitter and Instagram. Among the websites most wanted, were “professional websites” as health institute, blogs posted by virologists/biologists, ...” and online searches (e.g., through Google).

## **6. Conclusions**

The results of the present exploratory research study allow us to conclude that working students tend to be very worried about the corona virus and are taking actively precautions to prevent infection. They tend to constantly following all news updates regarding the virus even because found this virus much more dangerous than the seasonal flu and were very worried that friends or family will be infected. Although they consider that health authorities are competent entities to deal with the virus, most decide to make some stock of essential goods to deal with the confinement period.

When asked to compare themselves with the remaining population, working students consider that they take more precautions not to be infected.

When the individual's propensity to find uncertain situations unpleasant was measure, working students tend to be highly likely to consider situations of uncertainty as uncomfortable.

Another important conclusion is that working students not only want, but actively seek news about the coronavirus. Internet seems to be the main source of information, not only through official websites, such as through social media.

These results are not surprising if we consider that working students almost necessarily have more developed time management skills to be able to deal with

full-time work and an intense academic life. So, the fear of the unknown, the fear of uncertain situations that might get out of your control tend to be anxiogenic.

Some suggestions for the management of coronavirus fear can be made based on our findings. Particularly, if we consider the possible relationship between media exposure and fear of the coronavirus, which suggests that more exposure to media can lead to more fear. Therefore, it would be crucial to ensure that communication must be clear and unambiguous, without sensationalism or disturbing images, even because uncertainty tends to increase the fear.

On another hand, working students must be advised to somewhat restrict their exposure to media coverage of the COVID-19 crisis and avoid sensational media, which may enhance stress and decrease well-being. Clear information about the risk of threat and by taking (additional) steps to protect vulnerable groups for risk of infection could be another way to manage fear of the coronavirus could focus on the perceived risk of the virus for loved ones. There is evidence that suggest that such 'fear appeals' do not work very well to promote behavior change [18], particularly when people, like working students, have little coping strategies.

In conclusion, it was found that working students tend to report a wide range of concern regarding the coronavirus outbreak. Moreover, anxiety-related individual differences, looking up information about the coronavirus outbreak, and risks for loved ones seems to be positively related to increased fear of the coronavirus. Working students are a high-risk population group managing the fear and anxiety caused by the pandemic. Policy makers, higher education institution governance must be alert to these populations at increased risk and take measures to mitigate this risk.

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## Conflict of interest

The author declare no conflict of interest.

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